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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/071,963	02/07/2002	Yoshio Saito	02072/LH	1518

1933 7590 12/16/2003

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EXAMINER

DICUS, TAMRA

ART UNIT	PAPER NUMBER
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1774

DATE MAILED: 12/16/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/071,963

Applicant(s)

SAITO ET AL.

Examiner

Tamra L. Dicus

Art Unit

1774

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 26 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) 7-10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

All prior rejections are withdrawn due to Applicants arguments.

#### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-6, 11-12 (new) are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 0 875 374 A2 to Shimizu in view of USPN 5,019,440 to Ogasawara et al.
3. Shimizu teaches a decorative laminated sheet comprising a layer of completely amorphous polyester type resin (includes 100% amorphous polyester, meeting instant claim 6) and a substrate layer of amorphous polyethylene terephthalate (APET) see Example 1, page 3, lines 35-55, page 4, lines 1-20 and Abstract. Shimizu teaches an APET can be partially crystalline at page 2, lines 15-25. The thermoplastic may be colored or surface-printed at page 2, lines 22-23. This teaching is equivalent to a base material of colored APET as a main component. Shimizu teaches a transfer foil may be applied over the APET, and that the foil may also be comprised of APET (see page 2, lines 45-55). Transparent layer is provided as a protecting print layer at page 4, lines 10-15. A print layer for a design may be applied to the transfer foil, which Shimizu states can be made of the APET, thereby functioning as a suitable layer adjacent to a base material of APET, although Shimizu does not state the layering in the same manner. Further at page 4, lines 10-15, Shimizu teaches a transparent protective film for

Art Unit: 1774

protecting the print layer and a top coat layer are known in the art and teaches applying adhesive to APET. Shimizu teaches corona treatment can be applied to APET at page 4, lines 1-5, and further laminated via adhesive and explains corona discharging APET and/or transfer foil (which inherently provides the "hard" property) laminated with adhesive (equivalent to "surface protective layer) in Example 2, hence meeting instant claims 2-5.

4. While Shimizu teaches polyvinyl chloride resins may be blended with APET at page 3, line 11, Shimizu does not teach the ink composition of the pattern layer. However, Ogasawara teaches a decorative plate of polyester polymers such as PET comprising a print layer with ink. The print layer has an ink layer comprised of a binder of vinyl chloride/acetate copolymer. See col. 3, lines 5-15 and col. 4, lines 40-65. Hence, it would have been obvious to one of ordinary skill in the art to modify the sheet of Shimizu to include the ink composition including vinyl chloride/acetate copolymers for the purpose of preventing cracking or shrinking during print transfer as taught by Ogasawara at col. 4, lines 55-60.

5. Regarding new claims 11-12, the ratio weight percentages of amorphous to crystalline PE resin are not taught by Shimizu. However, such percentages are merely optimizable. It has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272. The weight percentage effects the crystallinity- the polymeric structure.

6. Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection. Shimizu remains in the rejection because Shimizu teaches the components of the structure.

Art Unit: 1774

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tamra L. Dicus whose telephone number is (703) 305-3809. The examiner can normally be reached on Monday-Friday, 7:00-4:30 p.m., alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia Kelly can be reached on (703) 308-0449. The fax phone number for the organization where this application or proceeding is assigned is (703) 746-8329.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Tamra L. Dicus  
Examiner  
Art Unit 1774

December 8, 2003

CYNTHIA M. KELLY  
SUPERVISOR  
TECHNOLOGY CENTER 1700

*Cynthia Kelly*